

**REMARKS**

Claims 1, 3 to 8 and 10 to 15 are all the claims pending in the application, prior to the present Amendment.

Supplemental to the Amendment Under 37 C.F.R. § 1.111 filed on August 13, 2008, applicants have amended claim 1 as set forth above to include the recitations of claims 3 and 6. Applicants have canceled claims 3 and 6, and have amended claims 4, 5, and 7 to depend from claim 1.

The following four patent documents have been cited in an Office Action issued by the Japanese Patent Office on July 29, 2008, concerning the counterpart Japanese Patent Application No. 2003-333480:

1) Japanese Unexamined Patent Application, First Publication No. 2002-342908  
(counterpart U.S. 2002/187368)

2) Japanese Unexamined Patent Application, First Publication No. 2003-217107  
(counterpart U.S. 2004/0027868)

3) Japanese Unexamined Patent Application, First Publication No. H09-204651

4) Japanese Unexamined Patent Application, First Publication No. 2001-351217

Each of the above four Japanese patent documents were cited in an Information Disclosure Statement filed on March 21, 2006, together with U.S. counterparts for the first two Japanese patent documents. The counterpart for JP 2003-217107 was listed in the Information Disclosure Statement as U.S. 2004/0027868, which has now issued as U.S. Patent 7,183,011. In the Office Action of May 13, 2008, the Examiner indicated that he has considered and made of record the documents cited in the Information Disclosure Statement of March 21, 2006.

In the Office Action issued by the Japanese Patent Office, the Examiner indicated that claims 1-5, 7-12 and 14 are anticipated by JP 2002-342908, and that claims 1-15 are obvious over JP 2002-342908, JP 2003-217107, JP H09-204651, and JP 2001-351217, on the grounds that

(i) Several kinds of oxides are disclosed in paragraphs [0032]-[0034] of JP 2002-342908 (paragraphs [0059]-[0061] of counterpart U.S. 2002/187368) as oxides of the crystal grain boundary region;

(ii) the features of ratio of oxides, a soft magnetic layer, and a single magnetic pole recording head can be arrived at by an appropriate design;

(iii) several kinds of oxides are disclosed in paragraph [0026] of JP2003-217107 (column 4, lines 48-56 of counterpart U.S. 7,183,011 and paragraph [0030] of counterpart U.S. 2004/0027868), paragraph [0018] of JP H09-204651, and the Example of JP 2001-351217.

Applicants set forth the following comments on these documents.

In paragraph [0032] of JP 2002-342908 (paragraph [0059] of counterpart U.S. 2002/187368), as oxides of the crystal grain boundary region of the magnetic layer, it is disclosed that another oxide such as Cr, Ti, Zr and Y oxides may be used in conjunction with Si oxides.

In paragraph [0026] of JP 2003-217107 (column 4, lines 48-56 of counterpart U.S. 7,183,011 and paragraph [0030] of counterpart U.S. 2004/0027898), it is disclosed that for the material comprising the nonmagnetic grain boundary region, an oxide of at least an element selected from Cr, Co, Si, Al, Ti, Hf, and Zr is desirable to form a stable granular structure.

In paragraph [0018] of JP H09-204651, it is disclosed that the magnetic layer may include at least one kind of oxides of alkali metals such as an oxide of Be, Mg, Ca, Sr, or Ba. It

is also disclosed that SiO, SiN, Al-O, Al-N, TiO, TiN may be included in the magnetic layer. In paragraph [0064] of JP H09-204651, oxides of Si and Mg are disclosed as oxides in the magnetic layer.

In paragraphs [0027] and [0034] of JP 2001-351217, as oxides of the crystal grain boundary region of the magnetic layer, two combinations of SiO<sub>2</sub> and GeO<sub>2</sub>, and SiO<sub>2</sub> and SnO<sub>2</sub> are disclosed, respectively.

However, JP 2002-342908, JP 2003-217107, JP H09-204651, and JP 2001-351217 are silent in dividing the oxides into two groups and selecting at least one oxide from each group. Moreover, JP 2002-342908, JP 2003-217107, JP H09-204651, and JP 2001-351217 do not disclose the range of the ratio of content of the oxides selected from one group to another group.

Claim 1 as amended above now recites that the oxides which form the crystal grain boundary region comprises: at least one oxide selected from group A of Y oxides, W oxides, Mg oxides, Al oxides, Zr oxides, and Hf oxides; and at least one oxide selected from group B of Ti oxides, Ce oxides, Si oxides, Cr oxides, Ni oxides, and Ta oxides, and recites that the content of the oxide selected from the group A in mole percentage is smaller than the content of the oxide selected from the group B in mole percentage in the oxides which form the crystal grain boundary region.

In Table 2, and at page 26, last paragraph of the present specification, an unexpected effect of the present invention is disclosed as follows: "As is clear from the results of Table 2, when oxides are used at various composition ratios, and when the amount of oxides of group B is larger than that of group A, better properties were exhibited."

Applicants submit that the above-mentioned patent documents JP 2002-342908, JP 2003-217107, JP H09-204651, and JP 2001-351217, the U.S. counterparts, and Nakazawa et al and

Takahashi et al that were cited by the Examiner in the Office Action of May 13, 2008, do not disclose or suggest the subject matter of claim 1 as amended above.

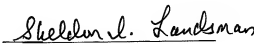
Applicants also submit that the above-mentioned patent documents JP 2002-342908, JP 2003-217107, JP H09-204651, and JP 2001-351217, the U.S. counterparts, and Nakazawa et al and Takahashi et al do not disclose or suggest the above-mentioned unexpected effect.

Accordingly, applicants submit that the currently amended claims 1, 4, 5, and 7, and the claims dependent thereon (original claims 8 and 10-15) are not disclosed by and are patentable over JP 2002-342908, JP 2003-217107, JP H09-204651, and JP 2001-351217, and the U.S. counterparts, as well as Nakazawa et al and Takahashi et al.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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